

Amendments to the Claims

1. (canceled)

2. (previously presented) A device as recited in claim 22, wherein a first portion of the first in-silicon inductor and a first portion of the second in-silicon inductor are formed on a first metal layer.

3. (canceled)

4. (previously presented) A device as recited in claim 2, wherein a second portion of the first in-silicon inductor and a second portion of the second in-silicon inductor are formed on a second metal layer.

5. (previously presented) A device as recited in claim 2, wherein a second portion of the first in-silicon inductor and a second portion of the second in-silicon inductor are formed on a second metal layer and a third metal layer.

6. (canceled)

7. (canceled)

8. (withdrawn) A method for making an interleaved inductor structure, comprising the operations of:

forming a first in-silicon inductor having a plurality of turns; and

creating a second in-silicon inductor having a plurality of turns, a portion of the plurality of turns of the second in-silicon inductor being formed between turns of the first in-silicon inductor.

wherein a differential current flowing through the first in-silicon inductor and the second in-silicon inductor flows in a same direction in corresponding turns of the first in-silicon inductor and the second in-silicon inductor.

9. (withdrawn) A method as recited in claim 8, further comprising the operation of forming a first portion of the first in-silicon inductor and a first portion of the second in-silicon inductor on a first metal layer.

10. (withdrawn) A method as recited in claim 9, wherein the first metal layer is a top metal layer.

11. (withdrawn) A method as recited in claim 9, further comprising the operation of forming a second portion of the first in-silicon inductor and a second portion of the second in-silicon inductor on a second metal layer.

12. (withdrawn) A method as recited in claim 9, further comprising the operation of forming a second portion of the first in-silicon inductor and a second portion of the second in-silicon inductor are formed on a second metal layer and a third metal layer.

13. (withdrawn) A method as recited in claim 12, wherein the second metal layer is a below the first metal layer.

14. (withdrawn) A method as recited in claim 13, wherein the third metal layer is below the second metal layer.

15. (withdrawn) An interleaved inductor structure, comprising:

a first in-silicon inductor having a plurality of turns, a portion of the first in-silicon inductor being formed on a first metal layer, the first in-silicon inductor further having a plurality of connecting section formed on a second metal layer; and

a second in-silicon inductor having a plurality of turns, a portion of the second in-silicon inductor being formed on the first metal layer, the second in-silicon inductor further having a plurality of connecting sections formed on the second metal layer, a portion of the plurality of turns of the second in-silicon inductor being formed between turns of the first in-silicon inductor.

wherein a differential current flowing through the first in-silicon inductor and the second in-silicon inductor flows in a same direction in corresponding turns of the first in-silicon inductor and the second in-silicon inductor.

16. (withdrawn) A structure as recited in claim 15, wherein each connecting section of the first in-silicon inductor overlaps a portion of the second in-silicon inductor.

17. (withdrawn) A structure as recited in claim 16, wherein each connecting section of the second in-silicon inductor overlaps a portion of the first in-silicon inductor.

18. (withdrawn) A structure as recited in claim 17, wherein the first metal layer is a top metal layer.

19. (withdrawn) A structure as recited in claim 16, wherein each connecting section further is formed on a third metal layer.

20. (withdrawn) A structure as recited in claim 19, wherein the second metal layer is below the first metal layer.

21. (withdrawn) A structure as recited in claim 16, wherein the third metal layer is below the second metal layer.

22. (currently amended) A device, comprising:

a first circuit;

a second circuit; and

an impedance matching circuit coupled between the first circuit and the second circuit, wherein the impedance matching circuit includes:

a first in-silicon inductor spiraling in a first direction, wherein the first in-silicon inductor has a plurality of turns, and

a second in-silicon inductor spiraling in a second direction opposite the first direction, wherein the second in-silicon inductor has a plurality of turns,

wherein the first in-silicon inductor is interleaved with the second in-silicon inductor,

wherein an input of the first in-silicon inductor and an input of the second in-silicon inductor receives a differential signal and an output of the first in-silicon inductor and an output of the second in-silicon inductor produces a differential signal, and

wherein a first current in the first in-silicon inductor and a second current in the second in-silicon inductor flow in a same direction in corresponding turns of the first in-silicon inductor and the second in-silicon inductor ~~when a differential signal is applied to an input of the first in-silicon inductor and an input of the second in-silicon inductor.~~

23. (previously presented) The device of claim 22, wherein the first circuit is an RF filter.

24. (previously presented) The device of claim 22, wherein the first circuit is an antenna.

25. (previously presented) The device of claim 22, wherein the second circuit is a low noise amplifier.